



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/641,987

08/17/2000

Yang-Woon Na

40055/DBP/Y35

6207

23363

7590

02/12/2003

CHRISTIE, PARKER & HALE, LLP
350 WEST COLORADO BOULEVARD
SUITE 500
PASADENA, CA 91105

EXAMINER

BERCK, KENNETH A

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 02/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/641,987

Applicant(s)

NA, YANG-WOON

Examiner

Ken A Berck

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2879

DETAILED ACTION

Amendment A, filed Nov 7, 2002 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1-4, 6-9
Claims ~~1-9~~ and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated

*mmf
2/10/03*
by Anderson et al. (US 5,859,497).

Regarding claims 1 and 18-20, Anderson discloses (fig 6) a flat panel display with a faceplate and backplate to form a vacuum tight cell, an image production unit (206) provided within the cell, a plurality of spacers (fig 5) mounted within the cell such that the spacers are placed at a non-display area and extend substantially across the cell (column 6, lines 47-51), the spacers held between the faceplate and the backplate, a pair of alignment members connected to the spacers such that the spacers and alignment members form a spacer body, with a plurality of exhaust grooves (fig 9).

Regarding claim 2, Anderson discloses each alignment member is connected to one-sided end portions of the spacers.

Regarding claim 3, Anderson discloses a longitudinal axis of each spacer is positioned substantially parallel to a side of the cell.

Regarding claim 4, Anderson discloses (fig 19) a pair of subsidiary alignment members to form a substantially rectangular frame.

Art Unit: 2879

Regarding claim 6, Anderson discloses the exhaust grooves are positioned along a length of the spacer while being spaced apart from each other by a predetermined distance.

Regarding claim 7, Anderson discloses each spacer is provided with a plurality of image distortion prevention grooves.

Regarding claim 8, Anderson discloses the image distortion prevention grooves are positioned along a length of the spacer while being spaced apart from each other by a predetermined distance.

Regarding claim 9, Anderson discloses the image distortion prevention grooves and exhaust grooves are positioned adjacent the backplate and faceplate and are symmetrical.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Jaskie et al. (US 5,731,660).

Anderson discloses all of the above claim limitations but fails to clearly point out the alignment member having a plurality of grooves.

Jaskie discloses (fig 3) the alignment members having a plurality of grooves in order to provide a continuous fluid phase throughout all the separate compartments.

Art Unit: 2879

Hence it would have been obvious to one of ordinary skill in the art to use the flat panel of Anderson with the alignment members having a plurality of grooves in order to provide a continuous fluid phase throughout all the separate compartments, as taught by Jaskie.

Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Alwan (US 5,888,112).

Anderson discloses all of the above claim limitations but fails to clearly point out an insulating layer with a plurality of holes, a plurality of emitters, and a plurality of gate electrodes.

Alwan discloses (fig 1) an insulating layer with a plurality of holes, a plurality of emitters, and a plurality of gate electrodes in order to form a display image.

Hence it would have been obvious to one of ordinary skill in the art to use the flat panel of Anderson with the insulating layer with a plurality of holes, a plurality of emitters, and a plurality of gate electrodes in order to form a display image, as taught by Alwan.

Response to Arguments

Applicant's arguments filed Nov 7, 2002 have been fully considered but they are not persuasive.

Applicant argues Anderson fails to teach the spacer extends substantially across the cell. Examiner points out (column 6, lines 47-51) the spacers are placed on surface 204 in the regions between the pixels which includes a substantial length of the cell.

Applicant argues Anderson fails to teach the spacers and alignment members form a spacer body. Examiner points out (fig 5) the spacers and alignment members form a spacer body.

Applicant argues Anderson fails to teach the spacers including a plurality of exhaust grooves. Examiner points out (fig 9) the spacer includes a plurality of exhaust grooves comprising lowered areas in the spacer.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken A Berck whose telephone number is (703)305-7984. The examiner can normally be reached on Mon-Fri 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703)305-4794. The fax phone numbers

Art Unit: 2879

for the organization where this application or proceeding is assigned are (703)308-7382 for regular communications and (703)308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

kab
February 10, 2003


MICHAEL H. DAY
PRIMARY EXAMINER